

**ENVIRONMENTAL ASSESSMENT
FOR
CHICAGO SHORELINE PROJECT
FULLERTON THEATER-ON-THE-LAKE SEGMENT
CHICAGO, COOK COUNTY, ILLINOIS**

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SECTION 1 PURPOSE AND NEED

PURPOSE

Shoreline flooding and erosion are commonly occurring problems along Chicago Park District parkland and Lake Shore Drive on the Lake Michigan shoreline at Fullerton Parkway, Chicago, Cook County, Illinois. The deteriorated revetment would be replaced with steel sheet pile and stepped concrete revetment. Additional fill would expand the park. The land would provide a buffer from Lake Michigan wave action and thus prevent the commonly occurring flooding of the Fullerton Parkway-Lake Shore Drive intersection. The additional land would also serve as a buffer to protect the historic Theater-on-the-Lake from future coastal erosion.

AUTHORITY

Under resolutions adopted by the Committee on Public Works of the U.S. House (dated December 2, 1971 and April 11, 1974), the U.S. Army Corps of Engineers was directed to study shore erosion problems and erosion control measures for the Illinois shore of Lake Michigan.

Section 101(a)(12) of the Water Resources Development Act of 1996 authorized construction of the Chicago Shoreline Project. A project cooperation agreement (PCA) was executed on 17 May 1999, and provided for the non-Federal sponsor (the City of Chicago and the Chicago Park District) to build specific segments of the project.

1993 ENVIRONMENTAL ASSESSMENT

In 1993 the Corps of Engineers (USACE) released the *Illinois Shoreline Erosion Interim III, Wilmette Harbor to Illinois-Indiana State Line, Environmental Assessment*; the environmental assessment (EA) analyzed actions proposed to address storm damage, flooding, and erosion along the Lake Michigan shoreline. Since 1993 the Corps, in collaboration with the City of Chicago and Chicago Park District, has rebuilt miles of shoreline revetment. The impacts of replacing shoreline revetment at Fullerton Drive (Plate 2) were documented in the 1993 assessment. The 1993 selected plan involved construction of a new revetment (steel sheet pile bulkhead wall, concrete promenade, stepped concrete revetment, concrete wave deflector and stone scour protection at base of bulkhead wall) on the Lake Michigan shoreline at Fullerton Parkway.

This environmental assessment is a supplement to the 1993 EA, and documents impacts of revised project design of the revetment reconstruction on the Lake Michigan lakefront at Fullerton Parkway.

SECTION 2 ALTERNATIVES, INCLUDING THE RECOMMENDED PLAN

There are three alternative measures considered for evaluation within this EA.

1. No Action Plan- Under this alternative, the deteriorating revetment would not be replaced, Lake Michigan coastal erosion to this portion Lincoln Park would continue to threaten the historic Theater-on-the Lake, and the commonly occurring flooding of the Fullerton Parkway-Lake Shore Drive intersection would continue.

2. Revetment Replacement- Under this alternative, the deteriorating revetments in this section of Lincoln Park would be replaced with steel sheet pile and stepped concrete. No additional land would be added to Lincoln Park and Lake Michigan coastal erosion will threaten the historic Theater-on-the –Lake. Commonly occurring flooding of the Fullerton Parkway-Lake Shore Drive intersection would continue.
3. Park Expansion and Revetment Replacement- Under this alternative, the 1700 feet of deteriorating revetments would be replaced with steel sheet pile and stepped concrete. An additional 6.6 acres of new parkland would be created to the southeast of the existing park. This land would provide a buffer from Lake Michigan wave action and protect the historic Theater-on-the-Lake from coastal erosion. The additional land would also prevent the commonly occurring flooding of the Fullerton Parkway-Lake Shore Drive intersection.

RECOMMENDED PLAN

Park Expansion and Revetment Replacement- The deteriorating revetments would be replaced with steel sheet pile and stepped concrete and 6.6 acres of new parkland would be created.

Benefits of the recommended alternative include protection for the historic Theater-on-the-Lake, and increased flood protection for the area.

COMPLIANCE WITH ENVIRONMENTAL PROTECTION STATUTES

The proposed action is in full compliance with appropriate statutes, executive orders and regulations, including the National Historic Preservation Act of 1966, Fish and Wildlife Coordination Act, Endangered Species Act of 1973, Section 10 of Rivers and Harbors Act of 1899, Clean Air Act, Illinois Endangered Species Act, National Environmental Policy Act of 1969, as amended, Executive; Executive Order 12898 (Environmental Justice), Executive Order 11990 (Protection of Wetlands), Executive Order 11988 (Floodplain Management), and the Clean Water Act.

SECTION 404 (b)(1) EVALUATION, CLEAN WATER ACT

A Section 404 (b)(1) Evaluation has been completed and has been sent to the Illinois EPA. for approval (Appendix 1).

SECTION 3 AFFECTED ENVIRONMENT

PROJECT AREA

The project area (MAP) is adjacent to the west shore of Lake Michigan, in the SE ¼, ¼ of Section 28, T40N R14E of the 2nd principal meridian, and is shown on the Chicago Loop (Illinois) USGS 7.5' topographic quadrangle map.

The project will be located on the north side of Chicago along Lake Shore Drive at Fullerton Parkway. It is east of the existing Lake Shore Drive highway right-of-way.

Traffic disruption should be minimal allowing most area roads to remain open to local traffic.

Air Quality

The 2010 Illinois Annual Air Quality Report published by the Illinois Environmental Protection Agency (IEPA) presents a summary of air quality data collected throughout the State of Illinois during the calendar year 2010 (IEPA 2010). Data is presented for the six criteria pollutants (those for which National Ambient Air Quality Standards (NAAQS) have been developed - particulate matter (PM₁₀ and PM_{2.5}), ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead) along with heavy metals, nitrates, sulfates, volatile organic and toxic compounds. IEPA lists nonattainment area designations for counties in Illinois; nonattainment areas are regions within the country where the concentration of one or more criteria pollutants exceed the level set as the federal air quality standards. Cook County, Illinois, is considered moderate nonattainment for ozone and nonattainment for PM_{2.5} (particulate matter with a diameter equal or less than 2.5 microns). Particulate concentration and ozone trends are generally downward but are still elevated in the study area.

Water Quality

The Illinois Environmental Protection Agency (IEPA) annually collects chemical, physical, biological, habitat and toxicity data on rivers and streams, inland lakes, Lake Michigan and groundwater to satisfy reporting requirements found in Section 305(b) of the Federal Clean Water Act (CWA). The primary purpose of the Section 305(b) process is to provide for an assessment of the overall water quality conditions of Illinois waters. Lake Michigan is classified as a general use water body, which indicates the water quality should be protected to support aquatic life, wildlife, agricultural, primary, or secondary contact, and most industrial uses (IEPA 2012).

The State of Illinois has jurisdiction over approximately 1,526 square miles of open water and 63 shoreline miles of Lake Michigan bordering Cook and Lake Counties in the northeastern corner of the state. Of the total 1,526 square miles of Lake Michigan open waters in Illinois jurisdiction, only 196 square miles were assessed for aesthetic quality, aquatic life, fish consumption, primary contact, public and food processing water supply, and secondary contact. All 196 square miles were rated as fully supporting aquatic life, aesthetic quality, primary contact secondary contact, and public and food processing water supply. However, fish consumption use in the Illinois portion of Lake Michigan is assessed as Not Supporting (poor) due to contamination from polychlorinated biphenyls (PCBs) and mercury. In addition, all Lake Michigan beaches in Illinois were assessed as Not Supporting (poor) for primary contact use due to contamination from *Escherichia coli* bacteria. Potential sources of contamination include atmospheric deposition, urban runoff/storm sewers, combined sewer overflows, and other unknown sources.

Sediment Quality

Sediment sampling was conducted in the area of North Avenue beach to characterize the quality of the sediment present within the potential borrow area located south and/or east of the main North Avenue beach pier. This area contains excess submerged clean sand deposits that eventually travel with littoral currents to the south and deposit in Chicago Harbor. Grain size analysis suggests that the material is classified as fine sand. Analytical chemical testing was conducted at four boring locations and samples were analyzed from each site for USEPA TCL metals. Asbestos analysis was conducted at three of the four sampling locations. A summary of the sediment analysis results compared to the IEPA TACO risk base cleanup objectives for residential properties is provided in Table 1. In general, results suggest that the sediment would be classified as “clean” material; asbestos was not detected in any of the sediment samples.

Table – 1
Metals and Cyanide in Sediment
Laboratory Analytical Results - Target Analyte List
North Avenue Beach

Field Sample ID:			6	7	10	11	Tier 1 Residential Soil Cleanup Objectives		Soil Component of the Groundwater Ingest Exposure Route Value	
Date of Sample Collection:			10/8/2011	10/8/2011	10/8/2011	10/8/2011	Ingestion (mg/kg)	Inhalation (mg/kg)	Exposure Route Value	
Time of Sample Collection:			9:40	9:30	8:50	9:05			Class I (mg/kg)	Class II (mg/kg)
GAL Sample ID			1101001-01	1101001-02	1101001-03	1101001-04				
Cyanide, Total (4600CN,C,E)										
Analyzed:	Units	Rep. Limit	10/17/2011	10/17/2011	10/17/2011	10/17/2011				
Cyanide, T5	mg/kg	0.10	<0.10	<0.10	<0.10	<0.10	1,600	—	40	120
Total Metals (8010B)										
Analyzed:	Units	Rep. Limit	10/13/2011	10/13/2011	10/13/2011	10/13/2011				
Aluminum	mg/kg	5.0	1690	1650	1630	1070	NE	NE	-	-
Antimony	mg/kg	1.0	<1.0	<1.0	<1.0	<1.0	31	C	5	20
Arsenic	mg/kg	0.2	2.7	2.9	2.6	2.9	13	750	30	120
Barium	mg/kg	0.1	7.4	7.0	7.2	4.4	5,500	690,000	1,800	1,800
Beryllium	mg/kg	0.1	<1.0	<1.0	<1.0	<1.0	160	1,300	1,000	130,000
Cadmium	mg/kg	0.1	<1.0	<1.0	<1.0	<1.0	78	1,800	59	590
Calcium	mg/kg	10	92600	78900	92300	44900	G	C	-	-
Chromium	mg/kg	0.1	5.3	4.3	4.8	3.0	230	270	32	-
Cobalt	mg/kg	0.1	3.2	3.1	3.1	2.1	4,700	C	-	-
Copper	mg/kg	0.1	3.1	5.1	2.6	1.8	2,900	C	330,000	330,000
Iron	mg/kg	1.0	9980	5230	9680	3760	C	C	-	-
Lead	mg/kg	0.2	5.7	4.8	3.7	6.2	400	C	107	1,420
Magnesium	mg/kg	10	47100	39000	45200	24600	325,000	C	-	-
Manganese	mg/kg	0.1	287	247	274	177	1,600	69,000	-	-
Nickel	mg/kg	0.1	2.1	2.3	2.0	1.7	1,600	13,000	700	14,000
Potassium	mg/kg	10	283	301	283	167	G	C	-	-
Selenium	mg/kg	0.2	<0.2	<0.2	<0.2	<0.3	390	C	3.3	3.3
Silver	mg/kg	0.1	<1.0	<1.0	<1.0	<1.1	390	C	39	-
Sodium	mg/kg	10	409	146	160	78	G	C	-	-
Thallium	mg/kg	1.0	<1.0	<1.0	<1.0	<1.0	6.3	C	3.4	34
Vanadium	mg/kg	1.0	19.7	14.5	19.7	6.7	550	C	980	-
Zinc	mg/kg	0.5	30.9	19.2	30.7	32.1	23,000	C	16,000	32,000
Total Metals (7470A)										
Analyzed:	Units	Rep. Limit	6/23/2008	6/23/2008	6/23/2008	6/23/2008				
Mercury	mg/kg	0.05	<0.05	0.10	0.51	0.43	23	10	6.4	32

mg/kg = milligrams per kilogram

Denotes values that exceed criteria

NE - Not Established

Source of Cleanup Objectives - 35 IAC Subtitle G Chapter I Subchapter F Section 742 Appendix B Table A Tier 1 soil
Remediation Objectives for Residential Properties:

*C - No toxicity criteria available for the route of exposure

*G - chemical-specific properties are such that this route is not of concern at any soil contaminant concentration

Soil component for the groundwater ingestion route uses the pH specific tables from Appendix B Tables C and D with
units a pH from June 2006 testing of pH with an average value of 7.45

AQUATIC COMMUNITIES

Fish

Fish surveys have been conducted around Lake Michigan by various state and federal agencies for several decades. Twenty-four (24) native species and ten (10) non-native species have been identified from the surrounding area (Table 2) using the Chicago Region Fish Database (unpublished). Important rare and sensitive species include the trout perch (*Percopsis omiscomaycus*), lake chub (*Couesius plumbeus*), burbot (*Lota lota*), and mottled sculpin (*Cottus bairdii*). Important native game fishes include smallmouth bass (*Micropterus dolomieu*), largemouth bass (*Micropterus salmoides*), rock bass (*Ambloplites rupestris*), and yellow perch (*Perca flavescens*). Non-native, introduced game fish include the Pacific Salmonids (*Oncorhynchus* spp.), European brown trout (*Salmo trutta*), and rainbow smelt (*Osmerus mordax*). Non-native invasive species include common carp (*Cyprinus carpio*), goldfish (*Carassius auratus*), alewife (*Alosa pseudoharengus*), sea lamprey (*Petromyzon marinus*), and round goby (*Neogobius melanostomus*). Invasive species of concern for this project are the common carp and goldfish since they are herbivores.

Table 2

Species	Common Name		Species	Common Name
<i>Lepomis macrochirus</i>	bluegill		<i>Percopsis omiscomaycus</i>	trout perch
<i>Micropterus dolomieu</i>	smallmouth bass		<i>Pimephales notatus</i>	bluntnose minnow
<i>Micropterus salmoides</i>	largemouth bass		<i>Pimephales promelas</i>	fathead minnow
<i>Perca flavescens</i>	yellow perch		<i>Pungitius pungitius</i>	nine-spine stickleback
<i>Lepomis cyanellus</i>	green sunfish		<i>Rhinichthys cataractae</i>	longnose dace
<i>Lepomis gibbosus</i>	pumpkinseed		<i>Lota lota</i>	burbot
<i>Ambloplites rupestris</i>	rock bass		<i>Oncorhynchus kisutch</i> *	Coho salmon
<i>Ameiurus melas</i>	black bullhead		<i>Oncorhynchus mykiss</i> *	rainbow trout
<i>Catostomus commersonii</i>	white sucker		<i>Oncorhynchus tshawytscha</i> *	Chinook salmon
<i>Cottus bairdii</i>	mottled sculpin		<i>Salmo trutta</i> *	brown trout
<i>Couesius plumbeus</i>	lake chub		<i>Carassius auratus</i> *	goldfish
<i>Dorosoma cepedianum</i>	gizzard shad		<i>Cyprinus carpio</i> *	common carp
<i>Gasterosteus aculeatus</i>	three-spine stickleback		<i>Neogobius melanostomus</i> *	round goby
<i>Notemigonus crysoleucas</i>	golden shiner		<i>Petromyzon marinus</i> *	sea lamprey
<i>Notropis atherinoides</i>	emerald shiner		<i>Osmerus mordax</i> *	rainbow smelt
<i>Notropis hudsonius</i>	spottail shiner		<i>Alosa pseudoharengus</i> *	alewife
<i>Notropis stramineus</i>	sand shiner			

*non-native species

Phytoplankton/Benthic Algae

Phytoplankton populations are routinely monitored by the City of Chicago at the Jardine Water Purification Plant intake north of the project area. Diatoms have dominated collections between 1981 and 1985. Phytoplankton populations were also sampled in Chicago Harbor (north of the project area) and Calumet Harbor (south of the project area) in August 1980. Forty-six species were collected at Chicago Harbor and 89 species at Calumet Harbor. Diatoms comprised 46 to 97 percent of all phytoplankton populations at the nine stations sampled (at 1 and 5 meter depths). Myxophyceae were the next most abundant group and comprised 7 to 43 percent of the populations at the nine stations sampled (at 1 and 5 meter depths).

Zooplankton

In a study of the zooplankton community on Lake Michigan, Johnson (1972) found small microfilterers and larger predacious species. The dominant species included *Bosmina longirostris*, *Daphnia retrocurva*, and *Cyclopus bicuspidatus thomasi*. Copepods (Crustacea) dominate the zooplankton biomass of Lake Michigan. Protozoans (Protozoa) and rotifers (Rotifera) may also be present in large numbers. Cladocerans (Crustacea) are abundant during the summer. Cladocera, especially *Bosmina longirostris*, dominated recent samples collected between Waukegan and Zion, Illinois, north of the project area. Twenty-four species were collected in Chicago Harbor (north of the project area) and 30 species were collected in Calumet Harbor (south of the project area) in August 1980. *B. longirostris* dominated these collections as well. Calanoid and cyclopoid nauplii were the next most abundant group.

Benthic Invertebrates

Generally, the benthic community of Lake Michigan in the study area is dominated by oligochaete worms, amphipods (*Pontoporeia affinis*), sphaeriid clams, and chironomid midge larvae (Rains 1971; McCommish 1975). Exotic species such as the zebra mussel (*Dreissena polymorpha*), quagga mussel (*Dreissena bugensis*), and the rusty crayfish (*Orconectes rusticus*) are present in the near shore habitats. Oligochaete worms (Oligochaeta) are more dense in southern Lake Michigan while amphipods (Amphipoda) are more dense in nearshore northern areas. The tubificids *Pelosclex multisetosus* and *Limnodrilus cervix* are generally more populated near larger cities, demonstrating pollution tolerance in these two species.

Amphibians

The only amphibian that occurs in Lake Michigan in the study area is the mudpuppy (*Necturus maculosus*). This animal is totally aquatic and due to the amounts of rock (riprap) and abundance of the rusty crayfish, it is possible that this species occurs in the study area. Because the mudpuppy is listed as endangered by the State of Illinois, a mudpuppy survey was conducted at the request of the IDNR. No mudpuppies were found (Appendix 2).

TERRESTRIAL COMMUNITIES

The parkland that currently exists in the project area never the less provides suitable habitat for common "urban" wildlife species, including fox and gray squirrel, opossum, cottontail rabbit, striped skunk, mice, red fox, bats, and eastern moles. Typical resident birds include English sparrow, starling, robin, herring gull, Canada geese, mallard, pigeon, cardinal, chickadee, red winged blackbird, purple martin, grackle, and blue jay. The west coast of Lake Michigan is a major landmark for migrating birds, numbers of which utilize these lakeshore park areas to forage and rest during migrations.

During winter months, large rafts of ducks congregate several hundred yards off shore along the Chicago lakefront during migration. Various species of ducks make up these rafts, with some of the more common ones being the greater and lesser scaup (*Athya marila* and *A. offinas*, common goldeneye (*Bucephala clangula*) and horned grebe (*Podiceps aurtius*).

NATURAL AREAS

North of Montrose Harbor in Lincoln Park is the Montrose Hill Bird Sanctuary. Located north of the project area, this naturalized area of the park provides habitat as well as a feeding and resting area for migrating birds during spring and fall migrations.

THREATENED AND ENDANGERED SPECIES

The project area is urban residential and urban parkland. It is within the range of the federally endangered Indiana Bat (*Myotis sodalists*) the Karner blue butterfly (*Lycaeides Melissa samuelis*), the threatened Pitcher's thistle (*Cirsium pitcheri*), and the candidate eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*). However, the project area contains no habitat likely to be used by threatened or endangered species with the possible exception of migratory avian species.

The longnose sucker (*Catostomus catostomus*) and lake whitefish (*Coregonus clupeaformis*) are the only state-listed threatened fish which may occur at the project area; both species have been collected incidentally in or near the study area, but are commonly found in deep water habitats.

The only amphibian that occurs in Lake Michigan in the study area is the mudpuppy (*Necturus maculosus*), listed as endangered by the State of Illinois. This animal is totally aquatic and due to the amounts of rock (riprap) and abundance of the rusty crayfish, it is possible that this species occurs in the study area. At the request of the IDNR a mudpuppy survey was conducted. No mudpuppies were found (Appendix 2).

ARCHEOLOGICAL AND HISTORIC PROPERTIES

Lincoln Park is listed on the National Register of Historic Places (listed 1994). West of the project area and across Lake Shore Drive is the Buena Park Historic District (listed 1984). The adjacent Theater on the Lake was built prior to 1905 as the Chicago Daily News Fresh Air Sanitarium (a tuberculosis hospital for infants); during WWII it was used by the USO, and since the early 1950s has been a summer theater. This structure is currently not listed on the National Register of Historic Places although it is eligible for the register.

Chicago maintains its own list of City Landmarks totaling approximately 256 individual structures and 48 historic districts. Many of these landmarks are also on the National Register of Historic Places, but there is little overlap in the area of Lincoln Park City of Chicago Landmarks in the area include the Alfred Caldwell Lily Pond located just south of Fullerton Parkway, and the Arlington – Deming Historic District located west of Lake Shore Drive and north of Fullerton Parkway.

The project area is manmade artificial Lake Michigan shoreline consisting entirely of post-1920 landfill with park land created through heavily landscape modification that included grading, blading and filling to create the present park landscape. The present shoreline is armored with boulder revetments (installed in 1925) and topped with a concrete walkway (constructed 1946-1949). The adjacent lakebed immediately offshore contains no structures or historic properties, and has been disturbed by filling and wave action. No intact archaeological deposits are present.

LAND USE HISTORY

The City of Chicago created Lincoln Park in 1865 naming it for President Abraham Lincoln who had just been assassinated. The area was originally sand dunes and the location of several cemeteries. In the following decades the cemeteries were relocated, the shoreline was stabilized

and the area landscaped with fill and excavated ponds. Additional features added to the park including the Lincoln Park Zoo established in 1869, Lake Shore Drive built in 1875, and the Lincoln Park Conservatory constructed in 1892. The Lincoln Park Commission was granted the right to reclaim submerged lands from Lake Michigan in 1895. This allowed for expansion of Lincoln Park to the east as portions of the lake were filled in, a process that continued into the 1920s.

SOCIAL SETTING

Chicago is located in northeastern Illinois at the southwestern tip of Lake Michigan. It straddles the continental divide between the Great Lakes and Mississippi River watersheds. Chicago is the third most populous city in the United States with an ethnically and racially diverse population of approximately 2.8 million people. Median household income for the City of Chicago is \$43,650.00 (2006), and the median home cost is \$238,567.00 (2010). Surrounding communities include Evanston, Oak Park, Cicero, and Evergreen Park.

Chicago's Lincoln Park neighborhood is located just west of the project area. This is an affluent, predominately white, upper-middle to upper class community with a population of approximately 65,000 (2010). Median household income in the Lincoln Park neighborhood is \$63,738.00 (2010). Median house value is \$383,300.00 (2010).

Recreation

Lincoln Park is a multi use city park containing picnic shelters, jogging and hiking trails, beaches marinas, and fishing areas. The Theater-on-the-Lake building hosts plays for the public. The Lincoln Park Conservatory is open to the public. The Lincoln Park Zoo is the largest free public zoo in the United States.

HAZARDOUS, TOXIC AND RADIOACTIVE WASTE (HTRW) INVESTIGATION

An HTRW investigation of the Fullerton, Theater-on-the-Lake project areas was completed as an update to previous HTRW investigations conducted between 1994 and 2005. Database search results indicate that there is little potential for HTRW and non-HTRW conditions resulting from federal or state regulated facilities within the ASTM established search distances and the proposed project is not expected to cause disturbance or release of hazardous, toxic, or radioactive waste (Appendix 3).

SECTION 4 ENVIRONMENTAL CONSEQUENCES

IMPACTS OF "NO ACTION" PLAN

The "no action" plan could result in increased park degradation from erosion. Transportation and other public facilities could be adversely affected.

GENERAL IMPACTS (SECTION 122 OF PUBLIC LAW 91-611)

Section 122 of Public Law 91-611 identified 17 potential areas of impact that are required to be considered as part of an impact analysis of proposed projects. **The proposed plan would not adversely affect community cohesion, community growth, tax revenues, property values, public services, or regional growth. No farms, people, businesses or industrial activity would be displaced.** Impacts of the remaining 17 areas follow:

Noise Impacts

The proposed action will cause temporary increases in noise from machinery and equipment during construction. These impacts will be temporary and will not result in significant or long-term adverse impacts.

Air Quality Impacts

The proposed action would cause temporary increases in exhaust emissions from machinery and equipment during construction. These impacts would be minimal because of emission and dust controls required by the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and local restrictions. The Corps of Engineers specifications (CW-04130 Construction Specifications for Environmental Protection, July 1978) are included in contracts to provide protection for the local environment. Construction and operation of the project would not result in significant or long-term adverse impacts to air quality. The project would involve only a de minimis discharge of airborne pollutants, and is therefore in compliance with the Clean Air Act Conformity Rule.

Water Quality Impacts

The project will have no significant long-term impact on the quality of water of Lake Michigan will comply with all applicable water quality standards. The project will involve construction in water; therefore, both Section 401 and 404 of the Clean Water Act apply to this project because the project will involve discharges to the waters of the United States (Section 401), and will involve disposal of fill material in the Nation's waters (Section 404). A 404b(1) evaluation has been completed and sent to the Illinois EPA for approval.

Section 10 of Rivers and Harbors Act of 1899-The project will involve placement of fill in navigable waters.

Executive Order 11988 (Floodplain Management)-The project will not promote development in the floodplain.

The project would have no significant adverse impact on human health or welfare or to municipal or private water supplies.

ADDITIONAL SOCIAL IMPACTS

Project impacts on **natural resources, man-made resources, and employment** will be temporary. Employment could increase slightly during construction, and the region's labor force should provide the necessary workers. There will be no significant adverse effect to **public facilities**. During construction, increased traffic congestion would be localized and intermittent. Any **aesthetic** degradation would be temporary.

ENVIRONMENTAL JUSTICE

Executive Order 12898 (Environmental Justice)- The USEPA Environmental Justice website has been consulted (February 2, 2013), and indicates that the project is not within an Environmental Justice area and therefore this project will not have an adverse effect on any low-income or minority populations.

AQUATIC IMPACTS

Fish and Wildlife Coordination Act- Revetment reconstruction would involve placement of clean, inert fill material in nearshore Lake Michigan. The fill material would not release contaminants into the water column; therefore significant contaminant biomagnification through the food web is not likely. Construction activities would cause temporary, short-term increases in turbidity and suspended solids in the immediate area; no long-term effects would occur.

Turbidity reduces the depth to which light penetrates the water. Reduction in light at a given depth may reduce the productivity of phytoplankton via a reduction in photosynthesis, may impair the ability of sight-feeding fish to capture prey, and will adversely impact filter-feeding organisms such as mussels. A reduction in phytoplankton productivity may cause a short-term reduction in zooplankton, which feeds upon phytoplankton. These zooplankton populations normally fluctuate through the season and respond quickly to changes in nutrients.

Sessile or fossorial benthic invertebrates present in the construction areas could be lost either due to mechanical damage or smothering by the stones. Species that comprise the existing benthic communities are not protected or rare and are not restricted to this location. Aquatic insects are able to quickly recolonize disturbed habitats once the environment has stabilized. Invertebrates from nearby undisturbed areas would recolonize the construction areas within a period of weeks after the work is completed. For these reasons, the proposed project is not likely to have a significant adverse impact on benthic aquatic insect or decapod communities of Lake Michigan. The turbidity created by the proposed activities would have no long-term adverse impact on the water quality. This turbidity may temporarily cause resident fish species to relocate. Turbidity created by the proposed activity is not expected to be greater than what a typical storm may generate in near-shore areas; therefore impact to the aquatic community is not expected to be greater than potential natural disturbances. Other potential effects such as localized dissolved oxygen depletion are not expected and ambient conditions would quickly return after cessation of construction activities.

Fish activity could be disrupted locally during construction, but would resume to normal shortly after project completion. The proposed project will provide substrate suitable for several different fish species to utilize for foraging and spawning.

The recommended plan would convert 6.6 acres of existing sandy bottom habitat to a terrestrial parkland (lawn) habitat. Shallow, sandy, bottom habitat is common in the nearshore portions of Lake Michigan; conversion of this habitat type to other types would be a long-term impact, but is not considered significant relative to the large amount of similar sandy habitat found in nearshore Lake Michigan. The U.S. Fish and Wildlife has concurred with this determination (letter dated February 5, 2009). The Illinois DNR has concurred with this determination (letter dated February 5, 2009).

EXECUTIVE ORDER 11990 (PROTECTION OF WETLANDS)-The project will not affect wetlands since there are no wetlands within the project modifications footprint.

EXECUTIVE ORDER 11988 (FLOODPLAIN MANAGEMENT)-The project will not promote development in the floodplain. The project area is not in the floodplain.

COASTAL MANAGEMENT

Review of the National Oceanic and Atmospheric Administration (NOAA) Federal Consistency Regulations (15 CFR 930) indicates that since this project will take place within the boundaries of

the Illinois Coastal Management Program, a Federal Consistency Determination is required. The project was found to be consistent with the Illinois Coastal Management Program (letter dated May 1, 2013).

Since the proposed work is located in Lake Michigan, an Illinois Department of Natural Resources, Office of Water Resources/ Illinois Environmental Protection Agency joint permit will be required and had been applied for.

SEDIMENT IMPACTS

The recommended plan would cover approximately 6.6 acres of existing sediments and displace some of the sediments laterally. Construction of the additional park land will not cause any significant contamination of existing sediments (primarily sand) because of the clean nature of the construction materials to be used.

TERRESTRIAL IMPACTS

The project would not have an adverse impact on any wildlife or habitat. The Illinois DNR has been consulted and has concurred with this determination (letter dated February 9, 2009). The U.S. Fish and Wildlife Service has been consulted and has concurred with this determination (letter dated February 2, 2009).

THREATENED AND ENDANGERED SPECIES IMPACTS

Illinois Endangered Species-The project would not affect state-listed threatened or endangered species, or habitat likely to be used by such species. The State of Illinois has been consulted and has concurred with this determination (letter dated February 9, 2009). Because the state-listed mudpuppy (*Necturus maculosus*) may occur in the project area, a mudpuppy survey was conducted at the request of IDNR. No evidence of mudpuppies was found.

Endangered Species Act of 1973-The project will not affect Federal-listed, threatened, or endangered species, or habitat likely to be used by such species. The U. S. Fish and Wildlife Service website has been consulted and has concurred with this determination (letter dated February 2, 2009).

Although the project is within the known range of the Federally endangered Indiana Bat (*Myotis sodalis*) and the Karner blue butterfly (*Lycaeides melissa samuelis*), two threatened state fish species the longnose sucker (*Catostomus catostomus*) and lake whitefish (*Coregonus clupeaformis*) there is no habitat present for these species within the project modification area. Therefore it has been determined that the project would not affect Federal or state-listed threatened or endangered species, or habitat likely to be used by such species. A copy of this draft EA will be sent to the US Fish and Wildlife Service and the Illinois DNR for review. The U.S. Fish and Wildlife Service concurred with this determination on February 2, 2009, the IDNR concurred on February 9, 2009.

INVASIVE SPECIES

National Invasive Species Act of 1996 P.L. 104-332, Executive order 13112- Invasive Species, and USACE Invasive Species memorandum dated June 2, 2009-The following goals in the National Invasive Species Management Plan are appropriate to this project;

Goal B. Preventive Goal- A number of invasive species are currently present in Lake Michigan including the Bloody Red Shrimp (*Hemimysis anomala*), zebra mussel (*Dreissena polymorpha*),

quagga mussel (*Dreissena rostriformis*), spiny waterflea (*Cercopagis pengoi*), round goby (*Neogobius melanostomus*). No additional invasive species will be introduced through this project.

Goal D. Control and Management Goal-Although several invasive species are currently within the project area, the mechanical excavation, terrestrial placement, and desiccation of dredged material will minimize the survival and transfer potential of any of the resident invasive species. This project will not contribute to the spread of any invasive species.

ARCHAEOLOGICAL AND HISTORIC IMPACTS

National Historic Preservation Act of 1966-A review of the National Register of Historic Places indicates that the project area is within the boundaries of Lincoln Park, a property listed on the National Register of Historic Places. Consultations have been conducted with the Illinois Historic Preservation Agency (IHPA) to ensure that the project will have no adverse impact on archaeological or historic properties. The Illinois Historic Preservation Agency has concurred with this determination (letter dated March 11, 2013). A copy of this draft EA will be sent to the Illinois SHPO for review.

In the event of the accidental discovery of cultural resources work will cease immediately and the USACE archaeologist will be notified. Consultations will be then be conducted with the Indiana SHPO's office to resolve any possible Section 106 issues.

Native American groups having an historic interest in northeastern Illinois have been consulted (letters date January 9, 2009).

HTRW IMPACTS

An HTRW investigation of the Fullerton, Theater-on-the-Lake project areas was completed as an update to previous HTRW investigations conducted between 1994 and 2005. Database search results indicate that there is little potential for HTRW and non-HTRW conditions resulting from federal or state regulated facilities within the ASTM established search distances and the proposed project is not expected to cause disturbance or release of hazardous, toxic, or radioactive waste (Appendix 3).

CUMULATIVE EFFECTS

Assessment of Cumulative Effects

Consideration of cumulative effects requires a broader perspective than just an examination of the direct and indirect effects of a proposed action. It requires that reasonably foreseeable future impacts be assessed in the context of the past and present effects to importance resources. Often it requires consideration of a larger geographic area than just the immediate "project" area. One of the most important aspects of cumulative effects assessment is that it requires consideration of how actions by others (including those actions completely unrelated to the proposed action) have and will affect the same resources. In assessing cumulative effects, the key determination of importance or significance is whether the incremental effects of the proposed action will alter the sustainability of resources when added to other present and reasonably foreseeable future actions.

Cumulative environmental effects for the proposed infrastructure project were assessed in accordance with guidance provided by the President's Council on Environmental Quality (USEPA, EPA 315-R-99-002, May 1999). This guidance provides an eleven-step process for identifying and evaluating cumulative effects in NEPA analysis.

Conclusion

The overall cumulative impact of the project is considered to be beneficial environmentally, socially, and economically.

Scoping

In this environmental assessment, the cumulative effects issues and assessment goals are established, the spatial and temporal boundaries are determined, and reasonably foreseeable future actions are identified. Cumulative effects are assessed to determine if the sustainability of any of the resources is adversely affected with the goal of determining the incremental impact to key resources that would occur should the proposal be permitted. The spatial boundary for the assessment encompasses the parkland and the associated facilities and surrounding streets served by the infrastructures to be improved. The temporal boundaries are:

1. Past-1865, when development of the area began.
2. Present-2013, when the selection plan was being developed.
3. Future-2065, the year used for determining project life end.

Projecting reasonably foreseeable future actions is difficult at best. Clearly, the proposed action is reasonably foreseeable; however, the actions by others that may affect the same resources are not as clear. Projections of those actions must rely on judgment as to what are reasonable based on existing trends and where available, projections from qualified sources. Reasonably foreseeable does not include unfounded or speculative projections. In this case, reasonably foreseeable future actions include:

1. Increased growth in water consumption.
2. Continued urban land use surrounding the project area.
3. Continued application of environmental requirements such as the Clean Water Act.

Cumulative Effects on Water Quality and Aquatic Communities

The project would have no long-term adverse effects on water quality or aquatic communities in Lake Michigan. Although other projects have adversely affected Lake Michigan, this project will not change the existing conditions. Studies of existing habitats and native species indicate this project will have no long-term adverse effects on either water quality or aquatic communities.

Cumulative Effects on geology and soils

The project area is existing lake fill. Soils of the area have been affected by filling, excavations, construction, and the burial of utilities. The proposed project would not alter the existing soil chemistry. There will be no affect caused to the geology of the area by the proposed project.

Cumulative Effect of Terrestrial Resources

Study of existing habitats and native species within the project area indicates that the relatively small modifications for this project to the existing shoreline will have no long-term adverse or cumulative effects to terrestrial resources, plants or animals.

Cumulative Effects on Land Use

Land use within the project area will change from shallow aquatic to 6.6 acres of upland park land. The increased parkland will be a beneficial affect of this project.

Cumulative Effects on Aesthetic Values

Aesthetic values in the project area will change from shallow open water to 6.6 acres upland park land. The project will have no cumulative adverse affects on the visual setting of the historic Theater-on-the-Lake..

Cumulative effects on Public Facilities

The existing conditions of public facilities will not be adversely affected by the project. The project will have no long-term adverse effects on public facilities.

Cumulative Effects Summary

Along with direct and indirect effects, cumulative effects of the proposed project were assessed following the guidance provided by the Presidents' Council on Environmental Quality (Table 1). There have been numerous effects to resources from past and present actions, and reasonably foreseeable future actions can also be expected to produce both beneficial and adverse effects. Additional long term adverse impacts to significant resources are not expected to occur. In this context, the effects of the proposed project are relatively minor.

Table 2 –Environmental Impact Summary

Potential Impact Area	Past Actions	Proposed Direct Impacts		Cumulative Impact
		Construction	Operation	
Geology & Soils	adverse	no impact	no impact	no impact
Hydrology	adverse	no impact	no impact	no impact
Water Quality	major adverse	short term negative but long term beneficial impact	no impact	no impact
Sediment Quality	major adverse	minor improvement	no impact	no impact
Aquatic Resources	major adverse	minor adverse	no impact	no impact
Terrestrial Resources	adverse	minor negative impact	no impact	beneficial
Land Use	adverse	minor adverse	no impact	beneficial
Aesthetics	no impact	no impact	slight impact	no impact
Archaeology/Historic	no impact	no impact	no impact	no impact

SECTION 5

References

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- IEPA 2012. Illinois Environmental Protection Agency Bureau of Water. Draft Integrated Water Quality Report and Section 303(d) List. 2012.
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- Page, Larry M., Brooks M. Burr. A Field Guide to Freshwater Fishes North America North of Mexico. New York: Houghton & Mifflin Publishing Co. 1991.
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- U.S. Army Corps of Engineers. 1993. Burns Waterway Harbor, Indiana Breakwater Major Rehabilitation Environmental Assessment.
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- Wetzel, R.G. 1983. *Limnology*. Saunders College Publishing: Chicago. 858 pp.
- Vinyard, G.L. and W.J. O'Brian. 1976. Effects of light and turbidity on the reactive distance of bluegill (*Lepomis macrochirus*). *Journal of the Fisheries Research Board of Canada* 33:2845-2849.

SECTION 6

COORDINATION

RECIPIENTS

The following elected officials, agencies, and Tribes received a copy of this environmental assessment:

ELECTED OFFICIALS

U.S. Senator Dick Durbin
711 Hart Senate Office Bldg
Washington, DC 20510

U.S. Senator Dick Durbin
230 S. Dearborn St.
Suite 3892
Chicago, IL 60604

U.S. Senator Mark Kirk
230 S. Dearborn St.
Suite 3900
Chicago, IL 60604

U.S. Senator Mark Kirk
524 Hart Senate Office Bldg
Washington, DC 20510
Senator Durbin

U.S. Congressman Mike Quigley
3742 W. Irving Park Rd
Chicago, IL 60618

U.S. Congressman Mike Quigley
1124 Longworth House Office Building
Washington, DC 20515

43rd Ward Alderman Michele Smith
2523 N. Halsted
Chicago, IL 60614-2539

Governor Pat Quinn
Office of the Governor
207 State House
Springfield, IL 62706

Mayor Rahm Emanuel
Office of the Mayor
121 N LaSalle Street
Chicago City Hall 4th Floor
Chicago, IL 60602

FEDERAL AGENCIES

Kenneth Westlake, Chief
Environmental Review Branch
U.S. EPA ME-19J
77 West Jackson
Chicago, IL 60604

US Fish and Wildlife Service
Chicago Illinois Field Office
1250 South Grove, Suite 103
Barrington, Illinois 60010
Attn: Louise Clemency

STATE AGENCIES

Office of Resource Review
Illinois DNR
One Natural Resource Way
Springfield, IL 62702-1271
ATTN: Todd Rettig

Illinois DNR – Realty/Planning
One Natural Resource Way
Springfield, IL 62702-1271
ATTN: Pat Malone

Illinois DNR/OWR
160 N. LaSalle St,
Suite S-700
Chicago, Illinois 60601
ATTN: Dan Injerd

Illinois EPA
Water Pollution Division
1001 N. Grand
Springfield, IL 62794
ATTN: Bruce Yurdin

Illinois Hist. Pres. Agency
1 Old State Capitol Plaza
Springfield, IL 62701
ATTN: Anne Haaker

IDNR/OWR
Lake Michigan Management Section
Michael A. Bilandic Building
160 N. LaSalle Street, Suite s-703
Chicago, IL 60601
Attn: James P. Casey

Sustainability Officer
Mayors' Office
121 N. La Salle Srt.
City Hall
Chicago, IL 60601
ATTN: Karen Weigert

Chicago Park District
541 N. Fairbanks
5th floor
Chicago, IL 60604
ATTN: Michael P. Kelly

Friends of the Parks
17 N. State Street
Suite 1450
Chicago, IL 60602
Attn: Erma Tranter

Lincoln Park Advisory Council
c/o M. Kehoe
Peggy Notebaert Nature Museum
2430 Cannon Drive
Chicago, IL 60657

TRIBES

Kickapoo Tribe of Oklahoma
P.O. Box 70
McCloud, OK 74851

Kickapoo of Kansas
1107 Goldfinch Rd.
Horton, KS 66434

Kickapoo Tribe of Texas
Box HC 1 9700
Eagle Pass, TX 78853

Miami Tribe of Oklahoma
P.O. Box 1326
Miami, OK 74355
ATTN: George Strack

Citizen Potawatomi Nation
1901 S. Gordon Cooper Dr.
Shawnee, OK 74801

Forest County Potawatomi Exec. Council
P. O. Box 340
Crandon, WI 54520

Nottawaseppi Huron Potawatomi Tribal Office
2221 One-and-a-half Mile Rd.
Fulton, MI 49052

Hannahville Potawatomi Comm., Council
N 14911 Hannahville Road
Wilson, MI 49896-9728

Pokagon Band of Band of Potawatomi Indians
P.O. Box 180
Dowagiac, MI 49047

Miami Nation in Indiana
P.O. Box 41
Peru, IN 46970



Illinois Historic
Preservation Agency

FAX (217) 782-8161

1 Old State Capitol Plaza • Springfield, Illinois 62701-1512 • www.illinois-history.gov

Cook County
Chicago

Chicago Shoreline (Interim 3) Storm Damage Reduction
Fullerton Ave. at Lake Shore Dr.
IHPA Log #009011509

March 3, 2009

Peter Bullock
Department of the Army
Chicago District, U.S. Army Corps of Engineers
111 N. Canal St.
Chicago, IL 60606-7206

Dear Mr. Bullock:

We have reviewed the additional documentation submitted for the referenced project(s) in accordance with 36 CFR Part 800.4. Based upon the information provided, no historic properties are affected. We, therefore, have no objection to the undertaking proceeding as planned.

Please retain this letter in your files as evidence of compliance with section 106 of the National Historic Preservation Act of 1966, as amended. This clearance remains in effect for two years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the Illinois Human Skeletal Remains Protection Act (20 ILCS 3440).

If you have any further questions, please contact me at 217/785-5027.

Sincerely,

Anne E. Haaker
Deputy State Historic
Preservation Officer

A teletypewriter for the speech/hearing impaired is available at 217-524-7128. It is not a voice or fax line.



**Illinois Historic
Preservation Agency**

FAX (217) 782-8161

1 Old State Capitol Plaza • Springfield, Illinois 62701-1512 • www.illinois-history.gov

Cook County

Chicago

Chicago Shoreline (Interim 3) Storm Damage Reduction

Fullerton Ave. at Lake Shore Dr.

IHPA Log #009011509

March 11, 2013

Peter Bullock

Department of the Army

Chicago District, U.S. Army Corps of Engineers

111 N. Canal St.

Chicago, IL 60606-7206

Dear Mr. Bullock:

We have reviewed the documentation submitted for the referenced project in accordance with 36 CFR Part 800.4. Based upon the information provided, no historic properties are affected. We, therefore, have no objection to the undertaking proceeding as planned.

Please retain this letter in your files as evidence of compliance with section 106 of the National Historic Preservation Act of 1966, as amended. This clearance remains in effect for two years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the Illinois Human Skeletal Remains Protection Act (20 ILCS 3440).

If you have any further questions, please contact me at 217/785-5027.

Sincerely,

Anne E. Haaker

Deputy State Historic

Preservation Officer



Miami Tribe of Oklahoma

P.O. Box 1326 Miami, Oklahoma 74355
Ph: (918) 542-1445 Fax (918) 542-7260



January 15, 2009

Army Corps Of Engineers
Attn: Peter Bullock
111 North Canal Street
Suite 600
Chicago, Illinois 60606

RE: LRL-2008-228-gjd

To Whom It May Concern:

Aya, kikwesitoole. My name is Joshua Sutterfield and I am the Tribal Historic Preservation Officer for the Federally Recognized Miami Tribe of Oklahoma. In this capacity I am the Miami Nation's point of contact for all NAGPRA and Section 106 issues.

In reference to the above mentioned construction/project's, the Miami Nation is not currently aware of existing documentation directly linking specific Miami religious, cultural, or historic sites to the above referenced construction/project site(s). However, as this site(s) is/are within the aboriginal homelands of the Miami Nation, should any Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) be discovered during this or any construction project the Miami Nation requests immediate consultation with the appropriate State Historical Society or related entity.

The Miami Nation offers no objection to the proposed construction/project at this time. Again, should human remains and/or objects be uncovered please contact me at 918-542-1445, or by mail at the address listed above, to initiate consultation.

Sincerely

Joshua Sutterfield
Tribal Historic Preservation Officer
Miami Nation



chicago park district

Administration Office
541 North Fairbanks
Chicago, Illinois 60611
t (312) 742-PLAY
(312) 747-2001 TTY
www.chicagoparkdistrict.com

Board of Commissioners
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**General Superintendent
& CEO**
Timothy J. Mitchell

City of Chicago
Richard M. Daley
Mayor

February 23, 2009

Mr. Peter Bullock
U.S. Army Corps of Engineers
111 North Canal Street, Suite 600
Chicago, IL 60606

Dear Mr. Bullock,

The Chicago Park District is in full support of the shoreline work proposed for Fullerton Avenue at Lake Shore Drive. Based on knowledge of existing conditions and observation of completed structures of similar nature, we believe that infill of the eroded beach cell and addition of toe stone structure in front of the step stone revetment will improve aquatic habitat while providing better access for anglers and other park patrons.

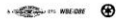
The Park District is actively promoting aquatic habitat enhancement on the Chicago shoreline. For information on recent partnerships and initiatives, go to <http://www.glf.org/urbanrestore/overview.html>. We value our partnership with the U.S. Army Corps of Engineers and look forward to future projects that improve the environmental performance of our engineered shorelines.

Sincerely,

Timothy J. Mitchell
Superintendent and CEO, Chicago Park District

CHICAGO
PARK
DISTRICT
come out
and play

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with soy ink




 REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
111 NORTH CANAL STREET
CHICAGO IL 60606-7206

RECEIVED
 Planning Branch
Environmental Formulation Section

9-FA-0171

JAN 13 2009

 John Rogner
U.S. Fish and Wildlife Service
1250 South Grove Ave.
Suite 103
Barrington, IL 60010

 CHICAGO ILLINOIS
FIELD OFFICE

Shawn

Dear Mr. Rogner,

The Chicago District is preparing a National Environmental Policy Act (NEPA) document on impacts of the Chicago Shoreline (Interim 3) storm damage reduction project in Chicago in Cook County, Illinois. As part of the scoping process the Chicago District would appreciate your comments on impacts associated with work proposed for Fullerton Avenue at Lake Shore Drive. To address shoreline erosion in this area, the project will involve reconstitution of deteriorated shoreline through the installation of steel sheet pile and concrete stepped revetment. Fill behind the revetment will be either dredged sand or crushed stone. Work will begin in Spring of 2010. A map of the project area is enclosed.

I am particularly interested in your comments regarding impacts to aquatic habitat and threatened or endangered animals. Please mark your reply to the attention of Mr. Peter Bullock, U.S. Army Corps of Engineers, 111 North Canal Street, Suite 600, Chicago, Illinois 60606. Questions may be directed to Mr. Bullock at 312/846-5587, or at peter.y.bullock@usace.army.mil. Your assistance is appreciated.

Sincerely,

NO OBJECTION
 U.S. Fish & Wildlife Services
Chicago Illinois Field Office

Karl N. Kramer 2/2/09
Supervisor Date

 Susanne J. Davis, P. E.
Chief of Planning Branch

Enclosure

Printed on Recycled Paper

 41.926440
- 87.629587



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

Pat Quinn, Governor

Marc Miller, Acting Director

February 9, 2009

Ms. Susanne J. Davis, P.E.
Chief, Planning Branch
Chicago District, Corps of Engineers
111 North Canal Street
Chicago, Illinois 60606-7206

Dear Ms. Davis:

Reference is made to your recent letter concerning the proposed preparation of a National Environmental Policy Act (NEPA) document addressing the impacts of the Chicago Shoreline (Interim 3) storm damage reduction project in Chicago. The project includes reconstitution of deteriorated shoreline through the installation of steel sheet pile and concrete stepped revetment, and is located in the southeast quarter of Section 28, Township 40 North, Range 14 East, Cook County, Illinois.

The proposed construction will not affect any known listed species or natural areas, and its potential impacts to aquatic habitat and biological resources in Lake Michigan appear to be minimal. The Department has no objections.

Please contact me at 217-785-4863 if we can be of further assistance.

Sincerely,

Robert W. Schanzle
Permit Program Manager
Office of Realty and Environmental Planning

RWS:rs

cc: IDNR/ORC (Robillard), IDNR/OWR (Casey), IEPA (Yurdin), USFWS (Clifton)



Coastal Management Program

160 N. LaSalle Street, Suite S-700 • Chicago, Illinois 60601 • <http://www.dnr.illinois.gov/cmp>

May 1, 2013

Ms. Charlene Walsh
Chicago Dep. of Transportation
30 N. LaSalle Street, Suite 400
Chicago, IL 60602

RE: Proposed construction of new shore protection and creation of 8.8 acres of new parkland in Lake Michigan by the Chicago Dep. of Transportation and the Chicago Park District at Fullerton Parkway in the City of Chicago

Dear Ms. Walsh:

Due to the fact that the above mentioned project is located within the boundaries of the Illinois Coastal Management Program (ICMP) and will be partially funded by the U.S. Army Corps of Engineers an ICMP Federal Consistency Determination is required. We have completed our review of the proposed project and have determined that it will not affect any coastal resources of the ICMP and is therefore consistent with the enforceable policies of the ICMP.

Be advised that this determination does not exclude you from obtaining any required federal, state or local permits.

If you have any questions, feel free to contact me at (312) 793-6947 or james.casey@illinois.gov.

Sincerely,

A handwritten signature in cursive script that reads "James P. Casey".

James P. Casey
Federal Consistency Coordinator

cc: Casey Pittman (U.S. Army Corps of Engineers)
Robert Foster (Chicago Park District)
William Weaver (AECOM)

Map 1



**U.S. Army Corps
of Engineers
Chicago District**



**FINDING OF NO SIGNIFICANT IMPACT
CHICAGO SHORELINE PROJECT
FULLERTON PARKWAY SEGMENT
CHICAGO, COOK COUNTY, ILLINOIS**

PURPOSE

Shoreline flooding and erosion are commonly occurring problems along Chicago Park District parkland and Lake Shore Drive on the Lake Michigan shoreline at Fullerton Parkway, Chicago, Cook County, Illinois. The deteriorated revetment would be replaced with steel sheet pile and stepped concrete revetment. Additional fill would expand the park and provide a buffer to prevent the erosional threat to the historic Theater-on-the-Lake structure. It would also provide a buffer from Lake Michigan wave action and thus prevent the commonly occurring flooding of the Fullerton Parkway-Lake Shore Drive intersection.

AUTHORITY AND BACKGROUND

AUTHORITY

Under resolutions adopted by the Committee on Public Works of the U.S. House (dated December 2, 1971 and April 11, 1974), the U.S. Army Corps of Engineers was directed to study shore erosion problems and erosion control measures for the Illinois shore of Lake Michigan. Section 101(a)(12) of the Water Resources Development Act of 1996 authorized construction of the Chicago Shoreline Project. A project cooperation agreement (PCA) was executed on 17 May 1999, and provided for the non-Federal sponsor (the City of Chicago and the Chicago Park District) to build specific segments of the project.

1993 ENVIRONMENTAL ASSESSMENT

In 1993 the Corps of Engineers (USACE) released the *Illinois Shoreline Erosion Interim III, Wilmette Harbor to Illinois-Indiana State Line, Environmental Assessment*; the environmental assessment (EA) analyzed actions proposed to address storm damage, flooding, and erosion along the Lake Michigan shoreline. Since 1993 the Corps, in collaboration with the City of Chicago and Chicago Park District, has rebuilt several miles of shoreline revetment. The impacts of replacing shoreline revetment at Fullerton Drive were documented in the 1993 assessment. The 1993 selected plan involved construction of a new revetment (steel sheet pile bulkhead wall, concrete promenade, stepped concrete revetment, concrete wave deflector and stone scour protection at base of bulkhead wall) on the Lake Michigan shoreline at Fullerton Parkway.

The May 2013 environmental assessment is a supplement to the 1993 EA, and documents impacts of the revised project design revetment reconstruction on the Lake Michigan lakefront at Fullerton Drive.

PROJECT AREA

The project will be located on the north side of Chicago shoreline along Fullerton Parkway. It is to the east of the existing Lake Shore Drive highway right-of-way.

ALTERNATIVES CONSIDERED

There are three alternative measures considered for evaluation within this EA.

1. No Action Plan- Under this alternative, the deteriorating revetment would not be replaced, Lake Michigan coastal erosion to this portion Lincoln Park would continue to threaten the historic Theater-on-the Lake, and the commonly occurring flooding of the Fullerton Parkway-Lake Shore Drive intersection would continue.
2. Revetment Replacement- Under this alternative, the deteriorating revetments in this section of Lincoln Park would be replaced with steel sheet pile and stepped concrete. No additional land would be added to Lincoln Park and Lake Michigan coastal erosion will threaten the historic Theater-on-the Lake. Commonly occurring flooding of the Fullerton Parkway-Lake Shore Drive intersection would continue.
3. Park Expansion and Revetment Replacement- Under this alternative, the 1700 feet of deteriorating revetments would be replaced with steel sheet pile and stepped concrete. An additional 6.6 acres of new parkland would be created to the southeast of the existing park. This land would provide a buffer from Lake Michigan wave action and protect the historic Theater-on-the-Lake from coastal erosion. The additional land would also prevent the commonly occurring flooding of the Fullerton Parkway-Lake Shore Drive intersection.

RECOMMENDED PLAN

Park Expansion and Revetment Replacement- The deteriorating revetments would be replaced with steel sheet pile and stepped concrete and 6.6 acres of new parkland would be created.

Benefits of the recommended alternative include protection for the historic Theater-on-the-Lake, and increased flood protection for the area.

ENVIRONMENTAL COMPLIANCE

An Environmental Assessment was prepared for the proposed project. The proposed action is in full compliance with appropriate statutes, executive orders and regulations, including the National Historic Preservation Act of 1966, Fish and Wildlife Coordination Act, Endangered Species Act of 1973, Section 10 of Rivers and Harbors Act of 1899, Clean Air Act, Indiana Endangered Species, National Environmental Policy Act of 1969, as amended, Executive; Executive Order 12898 (Environmental Justice), Executive Order 11990 (Protection of Wetlands), Executive Order 11988 (Floodplain Management), the Clean Water Act, and the Corps of Engineers Operational and Management regulations (33CFR 200, 335-338).

Along with direct and indirect effects, cumulative effects were assessed following the guidance provided by the Presidents' Council on Environmental Quality. The increment of effect from the proposed project when compared to cumulative effects of past, present, and reasonably foreseeable future actions is considered minor.

CONCLUSION

In accordance with the National Environmental Policy Act of 1969 and Section 122 of the Rivers and Harbors and Flood Control Act of 1970, the U. S. Army Corps of Engineers,

Chicago District, has assessed the environmental impacts associated with the proposed Chicago Shoreline Project, Fullerton Parkway Segment in Chicago, Illinois. The assessment process indicates that this project would not cause any significant effects on the quality of the human environment. Therefore, I have determined that an Environmental Impact Statement is not required.

Fredric A. Drummond Jr.
Colonel, U.S. Army
District Commander

DATE